

In re: Duvick, Jon P. *et al.*

Appl. No.: 10/047,825

Filed: January 16, 2002

Page 3 of 12

Amendments to the Claims:

Please cancel claims 1 and 6 through 43 as being drawn to non-elected inventions.

Please amend claims 2 and 5 as follows:

1. (Cancelled)
2. (Currently amended) An isolated nucleic acid molecule comprising a nucleotide sequence selected from the group consisting of:
  - (a) the nucleotide sequence set forth in SEQ ID NO:~~1, 3, 5, 7, 9, 11, 13, 15, 16, 18, 20, 22, 24, 26, 28, 30, 32, 34, or 36~~;
  - (b) a nucleotide sequence encoding the amino acid sequence set forth in SEQ ID NO:~~2, 4, 6, 8, 10, 12, 14, 17, 19, 21, 23, 25, 27, 29, 31, 33, 35, or 37~~;
  - (c) a full length nucleotide sequence comprising at least 46 200 contiguous nucleotides of a nucleotide sequence of (a) or (b), wherein said sequence encodes a polypeptide having ~~peroxidase-like~~ peroxidase activity;
  - (d) a nucleotide sequence having at least ~~60%~~ 90% sequence identity with at least one nucleotide sequence of (a) or (b), wherein said nucleotide sequence having at least ~~60%~~ 90% sequence identity with at least one nucleotide sequence of (a) or (b) encodes a polypeptide having ~~peroxidase-like~~ peroxidase activity;
  - (e) a nucleotide sequence that hybridizes under stringent conditions to at least one nucleotide sequence of (a) or (b), wherein said nucleotide sequence that hybridizes under highly stringent conditions to at least one nucleotide sequence of (a) or (b) encodes a polypeptide having ~~peroxidase-like~~ peroxidase activity, and wherein said stringent conditions comprise hybridization for 4 to 12 hours in 50% formamide, 1 M NaCl and 1% SDS at 37°C and a final wash in 0.1X SSC at 60 to 65°C for at least 30 minutes; and
  - (f) a nucleotide sequence complementary to a nucleotide sequence of (a), (b), (c), (d), or (e).
3. (Original) The nucleic acid molecule of claim 2, wherein said nucleotide sequence is operably linked to a promoter that drives expression in a plant cell.
4. (Original) An expression vector comprising the nucleic acid molecule of claim 3.

In re: Duvick, Jon P. *et al.*

Appl. No.: 10/047,825

Filed: January 16, 2002

Page 4 of 12

---

5. (Currently amended) A host cell having stably incorporated into its genome at least one nucleotide sequence, wherein said nucleotide sequence is operably linked to a heterologous promoter that drives expression in the host cell, wherein said nucleotide sequence is selected from the group consisting of:

(a) the nucleotide sequence set forth in SEQ ID NO: ~~1, 3, 5, 7, 9, 11, 13, 15, 16, 18, 20, 22, 24, 26, 28, 30, 32, 34, or 36~~;

(b) a nucleotide sequence encoding the amino acid sequence set forth in SEQ ID NO: ~~2, 4, 6, 8, 10, 12, 14, 17, 19, 21, 23, 25, 27, 29, 31, 33, 35, or 37~~;

(c) a full length nucleotide sequence comprising at least ~~46~~ 200 contiguous nucleotides of a nucleotide sequence of (a) or (b), wherein said sequence encodes a polypeptide having ~~peroxidase-like~~ peroxidase activity;

(d) a nucleotide sequence having at least ~~60%-90%~~ sequence identity with at least one nucleotide sequence of (a) or (b), wherein said nucleotide sequence having at least ~~60%-90%~~ sequence identity with at least one nucleotide sequence of (a) or (b) encodes a polypeptide having ~~peroxidase-like~~ peroxidase activity;

(e) a nucleotide sequence that hybridizes under stringent conditions to at least one nucleotide sequence of (a) or (b), wherein said nucleotide sequence that hybridizes under highly stringent conditions to at least one nucleotide sequence of (a) or (b) encodes a polypeptide having ~~peroxidase-like~~ peroxidase activity, and wherein said stringent conditions comprise hybridization for 4 to 12 hours in 50% formamide, 1 M NaCl and 1% SDS at 37°C and a final wash in 0.1X SSC at 60 to 65°C for at least 30 minutes; and

(f) a nucleotide sequence complementary to a nucleotide sequence of (a), (b), (c), (d), or (e).

6-43. (Cancelled)